per minute for basic surgical procedure, excluding physician costs) were used to estimate potential savings. **RESULTS:** There were a total of 239 cases: Cf=118 and Rv=121 patients. There were no significant differences between Cf and Rv patients in mean age, BMI, smoking status, diabetes, and prior radiation. Mean volume of fat harvested (499.5 vs 122.9 ml) and injected (178.9 vs 78.0 mL) were significantly higher ($p<0.0001$) in the Rv group compared to the Cf group, respectively. Mean time to complete fat grafting was significantly shorter in the Rv group compared to the Cf group (35.3 vs 89.8 minutes, respectively; $p<0.0001$). Mean OR costs with Rv were estimated to be $529-$706 vs $1347-$1796 with Cf. After taking into consideration the cost of Rv ($470), the potential net savings in mean OR costs were $347-$620 per case. **CONCLUSIONS:** The Rv fat processing system decreased operative time, which translated into a potential cost savings, and allowed for a larger volume of fat to be processed for injection compared to standard centrifugation.

PRM32

CONSISTENCY IN SEARCH STRATEGIES FOR SYSTEMATIC LITERATURE REVIEWS IN NICE SUBMISSIONS

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OBJECTIVES: The NICE methods for technology appraisal require systematic literature reviews across clinical, cost-effectiveness, cost and resource use and health state utility values. These searches are a key component of a manufacturer submission. Whilst differences in population terms are expected across appraisals, this study reviewed search strategies submitted in three recent NICE appraisals to assess whether search terms used for methodological filters were consistent. The choice of databases searched were also reviewed. **METHODS:** NICE technology appraisals were reviewed in reverse chronological order. Manufacturer submissions were searched to identify those that reported the search terms used. In order to keep the search manageable, a target of three papers was set in the first instance. Search terms for the following methodological filters were extracted: quality of life, cost and resource use, and cost-effectiveness. Results were compared qualitatively to assess the consistencies across search terms. Also extracted were the databases searched, presentation of search protocols and any Evidence Review Group (ERG) comments. **RESULTS:** Search terms used for the methodological filters varied across submissions and similarly the databases searched differed. This was noted for all searches, with the comprehensiveness of searches differing across the three appraisals. In consideration of the presentation of search protocols, there was further variation resulting in lack of transparency. A common approach was to run a single search strategy for the cost-effectiveness and cost and resource use reviews. **CONCLUSIONS:** From this initial review there appears to be a lack of consistency in search terms included and databases searched in NICE technology appraisals. Whilst generic search filters are available there appears to be a need to drive awareness and application of these search terms. The implication for technology appraisals is decision making based on non-optimized evidence bases.

PRM33

IDENTIFICATION OF ITEMS FOR A STANDARDISED RESOURCE-USE MEASURE: REVIEW OF CURRENT INSTRUMENTS

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OBJECTIVES: To review the content of existing resource-use measures with a view to conducting a Delphi survey to identify core items that should be included in any UK trial-based economic evaluation. **BACKGROUND:** Resource-use measurement by patient recall in economic evaluations alongside clinical trials is currently characterised by inconsistency and a lack of validation. A fully validated standardised resource-use measure could potentially increase data quality, improve comparability between cost-effectiveness analyses and reduce research burden on health economists. **METHODS:** A single version of each instrument designed for use in a UK-based study was identified from the Database of Instruments for Resource-Use Measurement (www.dirum.org). Section headings ('domains') and questions ('items') were extracted verbatim according to a predefined schema. Information on the recall period, level of detail, use of skip logic (i.e. a yes/no question designed to guide responders past irrelevant questions) and scope (disease-specific or total resource use) was also extracted. Items were scrutinised for overlap. **RESULTS:** In excess of 2000 items were extracted from 59 instruments. The range of structures used to collect data was extremely wide, and varying levels of information were requested about similar items (for example, the number of hospital stays or the number of nights spent in hospital). Recall periods varied substantially (sometimes within an instrument), and total resource use was more commonly requested than disease-specific resource use. Skip logic was employed in over half the instruments reviewed. The original items were reduced to a list of 350 following preliminary scrutiny for overlap, and further reduced to approximately 60 key items for future inclusion in a Delphi survey of health economists.**PRELIMINARY CONCLUSIONS:** There is substantial variation in the methods used to assess resource use in clinical trials. Further work is in progress to prepare and administer the Delphi survey.

PRM34

QUANTIFYING THE COST AND QUALITY OF LIFE IMPLICATIONS OF ADVERSE EVENTS ASSOCIATED WITH LONG-TERM ORAL CORTICOSTEROID USE

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OBJECTIVES: Maintenance oral corticosteroids (mOCS) are used in the treatment of severe asthma where patients have exhausted other available options without achieving acceptable control of their symptoms. However, long-term mOCS is associated with the development of a number of serious adverse events. These complications cause considerable healthcare costs and quality-adjusted life year (QALY) losses. The aim of this study was to establish the excess risk of complications associated with long-term mOCS use, and to quantify the cost and QALY burden of these events. **METHODS:** A systematic review was undertaken to identify any studies reporting adverse event risk due to mOCS treatment. Seventy-two (72) studies were identified. The review focussed on eight disease outcomes representing the bulk of the mOCS cost and QALY burden: type II diabetes, myocardial infarction, glaucoma, cataract, ulcer, osteoporosis, infection, and stroke. A risk estimate for each adverse event was selected, based on the daily dose and mOCS exposure that best represented asthma-related mOCS use in Australian clinical practice. The excess risk of each complication in patients receiving mOCS, relative to those patients not receiving mOCS, was applied to the annual cost and QALY burden of each event in the Australian population. The cost and QALY burden attributable to mOCS was estimated on a per patient per year basis. **RESULTS:** The expected annual cost of mOCS-related disease outcomes was estimated to be $598.32 per patient per year. Each patient treated with mOCS also suffers a QALY loss of 0.0367 per year of treatment. These effects are considered reversible once patients stop taking mOCS. **CONCLUSIONS:** mOCS are associated with a clear cost and QALY burden for patients with severe asthma which is likely underestimated by the approach adopted in this study. These results are likely to be useful for economic evaluations of new asthma interventions which replace or delay mOCS.

PRM35

COMPARING COST-EFFECTIVENESS OF EMERGING DRUGS IN ADVANCED CANCER WITHOUT HAZARD RATIOS FOR PROGRESSION

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OBJECTIVES: To compare the cost-effectiveness via progression-free survival (PFS) for a new advanced cancer treatment (immuno-therapy A) against two active comparators, both emerging drugs with publications reporting only their comparison against best supportive care (BSC) with progression-free survival curves, median survival and hazard ratios. **METHODS:** PFS of therapy A compared to BSC could not be represented through a single hazard ratio (HR) estimates as progression hazards were obviously changing over the study course. Improvements in median PFS in all three studies were similar (2.5, 2.6, 2.6 months), while median PFS for BSC in three studies were: 5.0, 6.7, 4.0 months. This highlighted the need for a meta-analysis to compare therapies. Instead of meta-analysing hazard ratios, the Ouwens method was applied to all six survival curves: (i) the curves were digitized and fitted to Weibull distributions, (ii) a fixed-effects model on shape and scale parameters was developed to deduce adjusted survival curves for the two comparators. **RESULTS:** Two adjusted survival curves for comparator therapies were obtained and anchored to the control arm for therapy A. The areas under the adjusted PFS curves, with ratios 1.48 and 1.35 in favour of the new drug, were introduced in the cost-effectiveness model. **CONCLUSIONS:** The Ouwens method of meta-analysing progression-free survival curves was introduced into a cost-effectiveness model in advanced cancer. Meta-analysing not just the hazard ratio but a 2-parameter fit of the survival curves and adjusting survival curves accordingly enabled to build a cost effectiveness model in a situation where comparisons based on HR or on median survivals were not feasible.

PRM36

INCLUDING HUMAN RESOURCE CONSTRAINTS IN HEALTH ECONOMIC EVALUATIONS

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OBJECTIVES: Health economic evaluations mostly present decision makers results without taking local constraints into account. This might influence the actual usefulness of studies and, more importantly, result in suboptimal decisions. Human resource constraints have been recently raised as a constraint that is of particular importance, especially in low and middle income countries. This review article aims to explore to what extent human resource constraints are taken into account in economic evaluations. **METHODS:** We conducted systematic literature review via 7 electronic databases and then consulted some experts for additional relevant articles. We searched for articles that investigate economic evaluations and mention human resource constraints. Subsequently, these articles were classified based on to what extent they addressed human resource constraints. We distinguished the categories 'ignoring', 'dealing' and 'relaxing' human resource constraints. Furthermore, we classified studies into modelling studies and studies based on primary data. **RESULTS:** We found 200 articles, approximately. The findings show that 164 articles ignore the constraints, accounting for 88 and 76 articles of primary data use and modelling use, respectively. Only 32 articles deal with or relax the constraints. Of these articles, 27 articles focus on the task shifting and the rest of them were distributed to the categories of dealing and relaxing, almost equally between modelling use and primary data use. **CONCLUSIONS:** Many cost effectiveness studies were conducted in settings in which human resource constraints are important. Although this is acknowledged, human resource constraints are often ignored in health economic evaluations. This practice results in biased estimates of the cost-effectiveness of interventions and misinforms decision makers. Guidance on how to properly deal with human resource constraints in cost-effectiveness analyses is needed.

PRM37

MULTIPLE TO SINGLE TRANSITION PROBABILITY: HCV-BASED EXAMPLE

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OBJECTIVES: Constructing a Markov model can be challenging as available data can be limited. In hepatitis C, more complex models that includes F0, F1, F2, F3 and F4 fibrosis states are required by HTA agencies. However transition probabilities (TP) can only be available for non-cirrhotic to cirrhotic states (simple model). Estimating separate TP for Fn to Fn+1 (Fn,n+1) can be challenging as Markov models are non-linear. The objective of this study was to estimate Fn,n+1 TP from a single non-cirrhotic (F0F3) to cirrhotic (F4) TP. **METHODS:** Results in markov models are driven by sum of cycles spent in each state. Thus, the method was built to produce